

### REMARKS

This is in response to the Office Action mailed on December 30, 2004. In the Office Action, the restriction requirement was made final and claims 9-20 were withdrawn, the Abstract of the Invention was objected to for using implied phrases, claims 2 and 3 were objected to because of informalities, and claims 1-8 were rejected over the prior art. With this Amendment, new dependent claims 21-32 are added depending from claim 1, and editorial amendments are made to the Abstract and the claims to overcome the cited informalities. In reliance on the following remarks, Applicant believes that the pending claims are in condition for allowance and respectfully requests reconsideration and notice to that effect. Claims 1-32 are now pending in the present application.

Applicant again traverses the restriction requirement on the grounds that the inventions of Groups I and II are not separate and distinct inventions. It is alleged in the Office Action that claims 2 and 3 of Group I provide "no nexus between the patterning steps with the use of the first and second photoresist layers and the definition steps of the stripe height back edge and the reader width." This assertion ignores the plain language of the preamble which informs that the recited steps of claims 2 and 3 are performed specifically for achieve the action defined by the preamble, namely, "defining the stripe height back edge" in claim 2 and "defining a reader width" in claim 3. Because a nexus is provided in claims 2 and 3, the inventions of Group I and II are not separate and distinct and Applicant respectfully requests reconsideration and withdrawal of this restriction requirement.

Claims 1-4 were rejected under 35 U.S.C. 102(e) as being anticipated by Lin et al., U.S. Patent No. 6,262,869 ("Lin"); claim 5 was rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Hiner et al., U.S. Patent No. 6,032,353 ("Hiner"); and claims 6-8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Gill et al., U.S. Patent No. 6,055,136.

Claim 1 is directed toward a method for forming a magnetoresistive (MR) reader by **defining a stripe height back edge of a MR sensor** of the MR reader, and subsequently defining a reader width of the MR sensor. None of the cited prior art teaches or suggests this method.

Lin is directed toward a spin valve sensor having a keeper layer encapsulated in oxide layers. Lin teaches that the spin valve sensor is formed **by defining a track width** of the spin valve sensor (see FIGS. 19H-I and Col. 12, lines 37-44), **and subsequently defining a stripe height**. (Col. 12, lines 55-60). The Office Action suggests that FIG. 19G teaches the step of defining a stripe height back edge of a MR sensor. See Page 4, Paragraph 8 ("...defining a stripe height back edge (back edge of the top surface of 312 in FIG. 19G)..."). This argument, however, relies upon an improper construction of the phrase **"stripe height back edge of a magnetoresistive sensor"** – a construction which improperly strikes most of the terms, namely **"stripe height...of a magnetoresistive sensor"**, from the phrase.

FIG. 19A-19L of Lin show various steps in the construction of a spin valve sensor. (Col. 11, lines 60-62). This construction occurs over an entire wafer where rows and columns of magnetic head assemblies are being constructed. (Col. 11, lines 62-66). In FIG. 19G spin valve sensor layers 310, 304, 302, 306, 308 and 312 are sputter-deposited over the entire wafer. (Col. 12, lines 23-25). Thus, the back edge of the top surface of 312 in FIG. 19G relied upon in the Office Action as the "stripe height back edge of a MR sensor" is only the back edge of the wafer upon which the spin valve sensor is being formed. As such, this back edge is not particular to any one MR sensor being formed on the wafer, and certainly is not the stripe height back edge of any MR sensor being formed on the wafer. As Lin teaches, the spin valve sensor's stripe height back edge is defined later, after the track width is defined, by patterning and ion milling. (See Col. 12, lines 55-60). Thus, Lin cannot anticipate the invention of claims 1-8 and 21-32 as it does not teach or suggest the definition of a stripe height back edge of a MR sensor prior to the definition of a reader width of the MR sensor.

This deficiency of Lin as an anticipatory reference is not overcome by either Hiner or Gill. Hiner is directed toward a write head having a low stack height and self-aligned pole tips, while Gill is directed toward a spin valve sensor having antiparallel magnetization of pinned layers. Neither of these references provides any teaching or suggestion for defining a stripe height back edge of a MR sensor prior to defining a reader width of the MR sensor. Because none of the prior art of record teaches or suggests

the claimed invention, the present application containing claims 1-8 and 21-32 (dependent claims 2-8 and 21-32 each depend from claim 1) is allowable.

In view of the above comments, it is believed that the present application is in condition for allowance. Reconsideration and notice to that effect is respectfully requested. The Examiner is invited to contact the undersigned at the telephone number listed below if such a call would in any way facilitate allowance of the application.

Respectfully submitted,

KINNEY & LANGE, P.A.

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By: 

Dina M. Khaled, Reg. No. 52,761  
THE KINNEY & LANGE BUILDING  
312 South Third Street  
Minneapolis, MN 55415-1002  
Telephone: (612) 339-1863  
Fax: (612) 339-6580

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